

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1. (Currently Amended) A management terminal apparatus comprising:
an information acquiring section acquiring communication profile information containing information for a wireless communication scheme, used frequency bandwidth, communication start time and communication duration time used by a wireless terminal apparatus ~~communication party~~ with another wireless terminal apparatus;
a generating section comparing the communication profile information and past communication permission history, and generating communication permit/deny information indicating communication permission or denial in accordance with the communication profile information; and
a transmission section transmitting generated communication permit/deny information to the wireless terminal apparatus.

2. (Currently Amended) The management terminal apparatus according to claim 1, wherein the communication profile information acquired by the information acquiring section, in addition to the information, further contains at least one of a modulation scheme, encoding rate, transmission power and spreading factor used by the wireless terminal apparatus ~~communication party~~ with the other wireless terminal apparatus.

3. (Currently Amended) The management terminal apparatus according to claim 1, wherein:

the information acquiring section, in addition to the communication profile information, acquires desired throughput information for ~~between~~ the wireless terminal apparatus ~~communication party~~ and the other wireless terminal apparatus; and

the generating section calculates expected throughput values at each communication link using the communication profile information and past communication permission history, and generates communication permit/deny information indicating communication permission or denial in accordance with the communication profile information by comparing the expected throughput value and the desired throughput information.

4. (Original) The management terminal apparatus according to claim 3, wherein:

the information acquiring section, in addition to the communication profile information and the desired throughput information, acquires actual throughput from the wireless terminal apparatus; and

the generating section, in addition to the communication profile information and the desired throughput information, calculates expected throughput values using the actual throughput, and generates communication permit/deny information indicating communication permission or denial according to the communication profile information by comparing the expected throughput values and the desired throughput information.

5. (Currently Amended) The management terminal apparatus of claim 1, wherein:

the information acquiring section receives the communication profile information using a wireless communication scheme different from ~~to~~ the wireless communication scheme used by the wireless terminal apparatus ~~communication party~~ with the other wireless terminal apparatus; and

the transmission section transmits the communication permit/deny information using the same wireless communication scheme as the wireless communication scheme of the receiving section.

6. (Original) The management terminal apparatus of claim 1, wherein the generating section generates communication permit information containing changed communication profile information where the information is changed in the case that communication permission is possible if at least one item of information contained in the communication profile information is changed.

7. (Currently Amended) The management terminal apparatus of claim 3, wherein:
the generating section ~~[[:]]~~ generates communication permit information containing changed communication profile information where the information is changed in the case that it is possible for the expected throughput values occurring at each communication link to satisfy the desired throughput if at least one item of information contained in the communication profile information is changed.

8. (Currently Amended) The wireless terminal apparatus of claim 3, wherein the generating section changes at least one item of information contained in the communication

profile information in such a manner that ~~a~~ the total of the expected throughput values for each link is a maximum, and generates communication permit information containing ~~the~~ updated communication profile information where the information is changed.

9. (Original) The management terminal apparatus according to claim 1, further comprising a storage section storing communication profile information corresponding to communication permit information as communication permission history.

10. (Currently Amended) The management terminal apparatus according to claim 9, ~~further comprising, in addition to communication permission history, a~~ wherein the storage section additionally stores ~~storing~~ required throughput information corresponding to communication permit information.

11. (Currently Amended) A wireless terminal apparatus comprising:
a generating section generating communication profile information containing information for a wireless communication scheme, used frequency bandwidth, communication start time, and/or a communication continuation time corresponding to a communication request in the event that the communication request occurs with another wireless terminal apparatus; and
a transmission section transmitting generated communication profile information to ~~a~~ the management terminal apparatus.

12. (Original) The wireless terminal apparatus according to claim 11, wherein the generating section, in addition to the information, further generates communication profile

information containing at least one of a modulation scheme, encoding rate, transmission power and spreading factor corresponding to the communication request.

13. (Original) The wireless terminal apparatus according to claim 11, wherein the generating section, in addition to the communication profile information, generates desired throughput information corresponding to the communication request; and

the transmission section transmits the generated communication profile information and the desired throughput information to the management terminal apparatus.

14. (Currently Amended) The terminal apparatus according to claim 11, wherein the transmission section transmits the communication profile information using a wireless communication scheme different from ~~to~~ the wireless communication scheme corresponding to the communication request.

15. (Original) The wireless terminal apparatus of claim 11, further comprising a receiving section receiving communication permit/deny information indicating communication permission or denial corresponding to the communication profile information from the management terminal apparatus, wherein:

the transmission section starts communication with the other wireless terminal apparatus in the event that the communication permit information is received.

16. (Currently Amended) The wireless terminal apparatus according to claim 15, wherein:

the generating section [[:]] generates new communication profile information in the event that communication deny information is received; and

the transmission section transmits generated new communication profile information to the management terminal apparatus in the event that communication deny information is received.

17. (Original) The wireless terminal apparatus of claim 15, wherein:

the receiving section receives communication permit information containing changed communication profile information where at least one item of information contained in the communication profile information is changed; and

the transmission section starts communication with the other wireless terminal apparatus in accordance with the changed communication profile information.

18. (Original) The wireless terminal apparatus according to claim 11, further comprising a receiving section receiving communication permit/deny information indicating communication permission or denial corresponding to the communication profile information from the management terminal apparatus, wherein:

the transmission section transmits notification of completion of the communication to the management terminal apparatus after communication is complete based on communication permit information from the management terminal apparatus.

19. (Original) The wireless terminal apparatus according to claim 11, further comprising a receiving section receiving communication permit/deny information indicating communication

permission or denial corresponding to the communication profile information from the management terminal apparatus, wherein:

the transmission section transmits actual throughput in communications based on communication permit information from the management terminal apparatus to the management terminal apparatus.

20. (Currently Amended) A wireless communication system having a plurality of wireless terminal ~~apparatuses~~ ~~apparatus~~ and a management terminal apparatus, each of the wireless terminal ~~apparatuses~~ ~~apparatus~~ comprising:

a generating section generating communication profile information containing information for a wireless communication scheme, used frequency bandwidth, communication start time, and/or a communication continuation time corresponding to a communication request in the event that the communication request occurs with another of the wireless terminal ~~apparatuses~~ ~~apparatus~~; and

a transmission section transmitting generated communication profile information to the management terminal apparatus, and

the management terminal apparatus comprising:

a receiving section receiving the communication profile information from the wireless terminal apparatus;

a generating section comparing the received communication profile information and past communication permission history, and generating communication permit/deny information indicating communication permission or denial in accordance with the communication profile information; and

a transmission section transmitting generated communication permit/deny information to the wireless terminal apparatus.

21. (Currently Amended) The wireless communication system according to claim 20, further comprising a relay terminal apparatus transmitting, receiving, and relaying the communication profile information and the communication permit/deny information between the wireless terminal apparatus and the management terminal apparatus.

22. (Currently Amended) A wireless communication system having a plurality of wireless terminal apparatuses ~~apparatus~~ and a management terminal apparatus,

each of the wireless terminal apparatuses ~~apparatus~~ comprising:

a generating section generating a trigger signal notifying of a communication request in the event that a communication request occurs with another of the wireless terminal apparatuses ~~apparatus~~; and

a transmission section transmitting the generated trigger signal to the management terminal apparatus, and

the management terminal apparatus comprising:

a receiving section receiving the trigger signal from the wireless terminal apparatus;

an acquiring section receiving the trigger signal and acquiring communication profile information relating to the wireless communication scheme corresponding to the communication request;

a generating section comparing the acquired communication profile information and past communication permission history, and generating communication permit/deny information

indicating communication permission or denial in accordance with the communication profile information; and

a transmission section transmitting generated communication permit/deny information to the wireless terminal apparatus.

23. (Currently Amended) A wireless communication method for a wireless communication system having a plurality of wireless terminal ~~apparatuses~~ apparatus and a management terminal apparatus, comprising the steps of:

one of the wireless terminal apparatuses ~~apparatus~~ generating communication profile information containing information for a wireless communication scheme, used frequency bandwidth, communication start time, and/or a communication continuation time corresponding to a communication request in the event that the communication request occurs with another of the wireless terminal apparatuses ~~apparatus~~;

the wireless terminal apparatus transmitting the generated communication profile information;

the management terminal apparatus acquiring the communication profile information ~~containing information for a wireless communication scheme, used frequency bandwidth, communication start time, and communication continuation time corresponding to a communication request corresponding to the communication request;~~

the management terminal apparatus comparing the acquired communication profile information and past communication permission history, and generating communication permit/deny information indicating communication permission or denial in accordance with the communication profile information; and

the management terminal apparatus transmitting generated communication permit/deny information to the wireless terminal apparatus.

24. (Original) An arithmetic apparatus calculating degree of interference indicating magnitude of interference incurred by a first communication link from a second communication link applied with a wireless communication scheme different to that of the first communication link, comprising:

a setting section setting an interference parameter coefficient indicating a relative ratio of change in influence of interference in the case that each communication parameter occurring in a wireless communication scheme applied to the first communication link changes, a unit time for calculating degree of interference, a first link bandwidth indicating a frequency band utilized by the first communication link at each timing within the unit time, an overlapping frequency bandwidth indicating a bandwidth of a frequency band of overlapping of the frequency band utilized at the first communication link and the frequency band utilized at the second communication link for each timing, a first power value for the first communication link occurring at each timing, and a second power value for the second communication link occurring at the overlapping frequency band; and

a calculating section calculating the degree of interference from the set values using the following equation:

[Equation 1]

$$\text{Degree of interference} = \frac{\text{Interference parameter coefficient}}{\text{Unit time}} \times \int_{\text{Unit time}} \frac{\text{Overlapping bandwidth}}{\text{First link bandwidth}} \times \frac{\text{Second power value}}{\text{First power value} + \text{Second power value}}$$

25. (Original) An arithmetic apparatus comprising:

a setting section setting degree of interference indicating magnitude of interference incurred by a first communication link from a second communication link applied with a wireless communication scheme different to that of the first communication link, reference throughput relating to a wireless communication scheme applied to the first communication link, and a throughput parameter coefficient indicating a ratio with respect to the reference throughput of the throughput in the case of changing the parameter corresponding to the reference throughput to another parameter; and

a calculating section calculating an expected throughput for the first communication link from the set values using the following equation.

[Equation 2]

$$\text{Expected throughput value} = \text{Reference throughput} \times \text{Throughput parameter coefficient} \times (1 - \text{Degree of interference})$$